

Pre- and Post-Evaluation



Vocabulary Match-Up

Draw connecting lines between words and their definitions.

Harem	Order of mammals including seals, sea lions, and walruses
Molt	Newborn elephant seal
Pinniped	Male elephant seal that has secured dominance over other male elephant seals for mating rights.
Proboscis	Shedding of skin layer and connected hair to make way for new skin and hair
Yearling	Group of females associated with one male for protection and reproduction
Weaner	A long, flexible snout characteristic of adult male elephant seals
Pup	An animal that is one-year-old, or one that has not completed its second year
Alpha Bull	Pup, under one year of age, that no longer relies on it's mothers milk

Elephant Seal History

Using the number 1 – 9, put these events in chronological order.

- 3 Mexican government bans elephant seal hunting
- 2 Fewer than 1,000 northern elephant seals remain
- 5 Worldwide population reaches an estimated 150,000 animals
- 1 British whale and seal hunters record seeing northern elephant seals from Baja, California to Mexico.
- 6 Elephant seals return to Point Reyes Headlands
- 4 United States bans elephant seal hunting

Species Challenges

Circle factors that have a negative impact on the survival of elephant seals even today.

Hunting

Storms

Habitat loss

Habitat protection

Proximity (nearness) of people to elephant seal colonies

Disease

Educating people about elephant seals

Scent left behind by dogs



Pre- and Post- Evaluation

(continued)

Life Cycle Information — True or False?

- T(~~F~~) Elephant seals spend only 20% of their lives at sea.
- T(~~F~~) Elephant seal pups can swim as soon as they are born.
- (~~T~~)F Elephant seals haul out on land to molt, to mate, and to give birth.
- (~~T~~)F Male elephant seals will battle to gain a position as the top bull, or alpha.

National Park System

In your own words, describe the mission of the National Park Service.

answers will vary

Stewardship

What can you do to help elephant seals? List your ideas on the back of this paper.

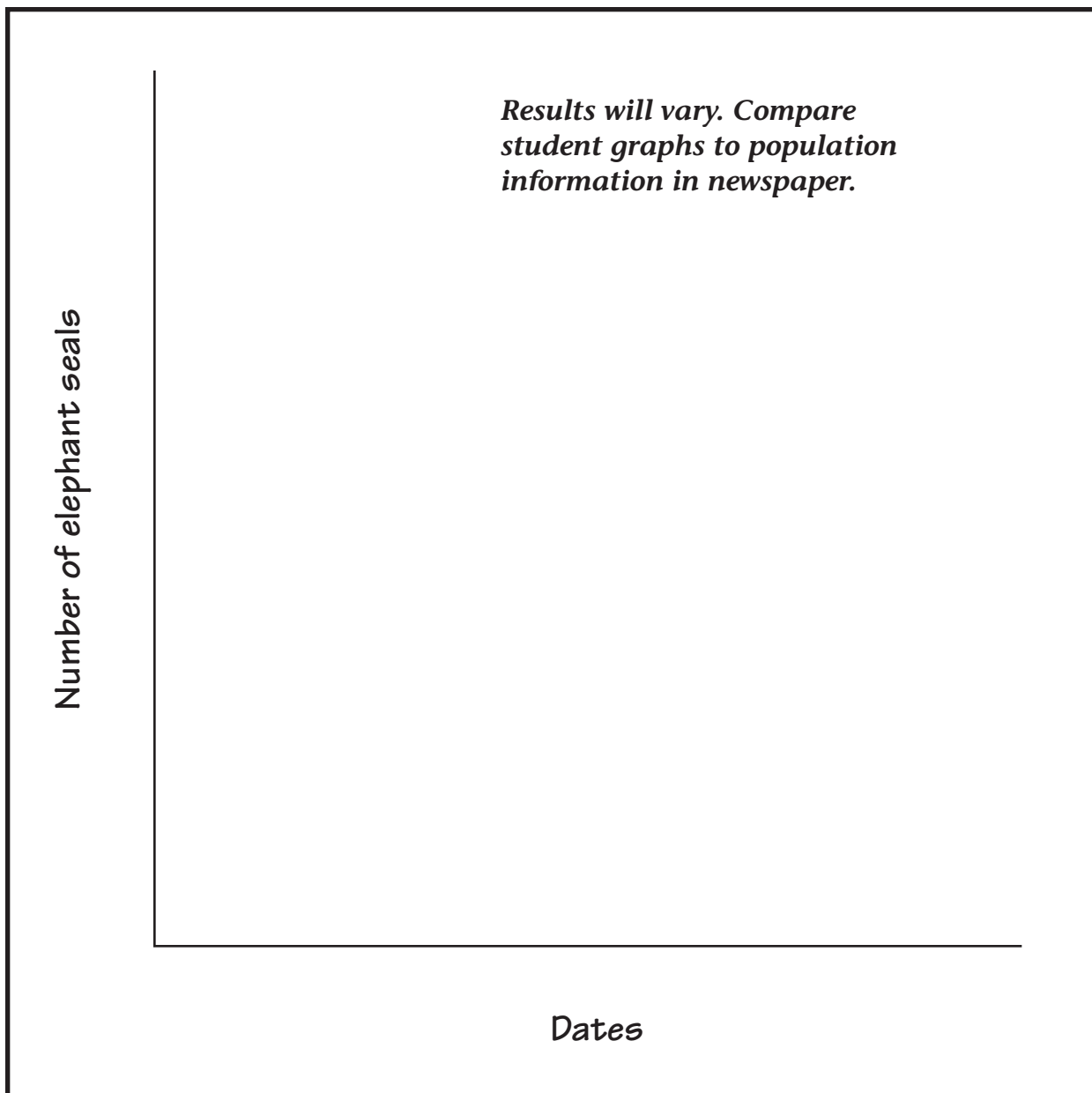
answers will vary

Elephant Seal Newspaper Activity
Wild Wonders of the Deep



Activity Master

1. Using the newspaper, make a list of any relevant information on dates and corresponding population numbers of elephant seals.
2. Graph your information below using a line graph or a bar graph.





Elephant Seal Newspaper Activity

Wild Wonders of the Deep

(continued)

Activity Master

3. Think about the following questions and record your thoughts.

- a. Why was the population so low in 1910?

ANSWER: *Overhunting by humans for their oil-rich blubber.*

- b. Why did the population increase so dramatically?

ANSWER: *Mexico and the United States banned hunting.*

- c. Elephant seals are protected from hunting today, but what other threats exist for them? Can anything be done to prevent some of these threats?

ANSWER: *Expanded use of elephant seal pupping/breeding beaches by people and their pets pose a serious threat. **Prevention:** people and their pets can use other beaches when elephant seals are present. Expanded hunting of elephant seals by other countries is a potential threat. **Prevention:** Develop lobbying groups to create political support for international hunting bans and work to educate other countries about oil options.*

4. What do you think will happen to the populations of elephant seals in the next 10 years? Why?

ANSWER: *Answers may vary. Elephant seal populations are likely to grow if people choose to limit their use of elephant seal haul out areas. If people do not keep sandy, protected beaches available to the elephant seals, then populations will drop unless they are able to relocate.*



Elephant Seal Newspaper Activity

The Secret Lives of Elephant Seals: at Sea, on Land



Activity Master

Migration Patterns

1. How many times do elephant seals journey between their feeding grounds and land each year?

ANSWER: *Twice—once to give birth/mate and once to molt.*

2. Why do they haul out on land?

ANSWER: *To give birth, mate and molt*

3. Where do males travel? Females?

ANSWER: *Males travel between California and Alaska; females travel between California and Hawaii.*

4. How do adult travel patterns differ from the activities of a yearling seal?

ANSWER: *Yearling seals rest on shore and socialize from September to November. They may not make the complete trip to the feeding grounds like the adults.*

Underwater World

An elephant seal will repeatedly spend 30 minutes underwater and 3 minutes at the surface. Use the activity below to help you determine how much time these mighty ocean dwellers spend both underwater and at the surface during a 24-hour period.

underwater minutes = 30 min. **surface minutes** = 3 min.

a = 1 hour = 60 minutes

b = (24 hours \times a) = 1440 minutes in one day

c = (**underwater minutes** + **surface minutes**) = 33 minutes for one cycle

d = (**b** \div **c**) = 44 (average) cycles of underwater / surface activity

e = (**d** \times **underwater minutes**) = 1320 total underwater minutes in 24 hours

f = (**d** \times **surface minutes**) = 132 total surface minutes in 24 hours

ANSWER: 22 hours underwater in 24 hours

2.2 hours at the surface in 24 hours



Elephant Seal Newspaper Activity

Worth Versus Value

Activity Master

Worth is the the quality of something that makes it desirable, useful, or valuable. **Value** is an amount considered to be an equal exchange for something else. When considering issues of preservation and conservation, these two terms are critical because they often guide decision making. In our modern society natural resources, such as elephant seals, are often viewed only in terms of their economic worth or value. However, new ways of thinking challenge us to recognize the worth and value of natural resources not so much for monetary rewards but for the worth and value that they hold just existing in the natural environment.

Think about how the concepts of worth and value relate to elephant seals and answer the following questions.

1. What is the value of an elephant seal?

ANSWERS will vary. *Values can be defined as economic, scientific, cultural, ecological, humanistic, intrinsic...*

2. What have been the economic uses of elephant seals in the past?

ANSWER: *Blubber for oil; scientific collections/study specimens.*

3. List three benefits and three consequences of oil use.

BENEFITS

1) *Lubrication between metal parts*

2) *Creates jobs*

3) *Income source for some countries*

CONSEQUENCES

1) *Pollution (land and marine)*

2) *Environmental degradation*

3) *Continued use of oil insures depletion of nonrenewable resources (elephant seals)*

4. Are there other alternatives?

ANSWERS will vary: *use recycled oil; reduce use of oil with alternative transportation methods; support alternative fuels and research for alternatives; synthetic oil or vegetable oils*



Elephant Seal Newspaper Activity

Worth Versus Value

(continued)



Activity Master

5. Why are elephant seals in Point Reyes protected by the National Park Service? Is protection in Point Reyes National Seashore enough?

ANSWERS will vary. *The National Park Service exists to protect natural resources, such as elephant seals, and their habitats for their value and their worth. **NO.** Protection within National Park Service areas is not enough. Elephant seals travel and hunt outside of National Parks, thus they are affected by people in many places. Their ocean habitat, food sources, and beach habitats must be protected to insure their survival. They rely on adequate space and shelter, clean air and water, and adequate food — just like we do. The entire environment must be protected to insure their survival and ours.*

6. How does this message from the National Park Service apply to elephant seals?

A MESSAGE FROM THE NATIONAL PARK SERVICE:

*The National Park Service cares for special places
saved by the American people so that all may
experience our heritage*

ANSWERS will vary. *The National Park Service provides the species with a protected habitat within National Park Service areas. It encourages research on the species and the education of people so that they understand and value the existence of the species. The National Park Service promotes stewardship of elephant seals— encouraging people to make choices and take actions that will insure the survival of the species so they can be enjoyed by future generations.*